CLAIMS

[Received by International Bureau June 2, 2005; original claims 1 and 4-6 were amended; original claims 2 and 3 were canceled; new claim 7 was added.]

1. (amended) A method of producing aluminum alloy sheets excelling in bake-hardenability and hemmability, comprising steps of casting, by means of a twin-belt casting method, an alloy melt comprising 0.30-1.00 wt% of Mg, 0.30-1.20 wt% of Si, 0.05-0.50 wt% of Fe, 0.05-0.50 wt% of Mn and 0.005-0.10 wt% of Ti, optionally further comprising at least one of 0.05-0.70 wt% of Cu or 0.05-0.40 wt% of Zr, the remainder consisting of Al and unavoidable impurities, to form a 5-15 mm thick slab at a cooling rate of 40-150 °C/s at a quarter-thickness of the slab; winding into a coil; subjecting to a homogenization treatment by inserting the coil into a batch furnace, heating to 520-580 °C at a heating rate of at least 30 °C/h, then holding at that temperature for 2-24 hours; cooling to 250 °C or less at a cooling rate of at least 500 °C/h; cold rolling; then subjecting to a solution treatment by heating to 530-560 °C at a heating rate of at least 10 °C/s in a continuous annealing line, and holding for 30 seconds or less.

2. (canceled)

3. (canceled)

4. (amended) A method in accordance with claim 1, comprising steps, after said solution treatment, of cooling to room temperature at a cooling rate of at least 10 °C/s, then subjecting to a restoration treatment by holding for 30 seconds or less at 260-300 °C in a continuous annealing furnace, and cooling to room temperature at a cooling rate of at least 10 °C/s.

5. (amended) A method in accordance with claim 1, comprising steps, after said solution treatment, of water-cooling to 250 °C or less at a cooling rate of at least 10 °C/s,

then air-cooling to 60-100 °C at a cooling rate of 1-20 °C/s, coiling up, and subjecting to a preliminary ageing treatment by cooling to room temperature.

6. (amended) A method in accordance with claim 1, comprising steps, after said solution treatment, of cooling to room temperature at a cooling rate of at least 10 °C/s, then subjecting to a restoration treatment by holding for 30 seconds or less at 260-300 °C in a continuous annealing furnace, cooling to 60-100 °C at a cooling rate of at least 1 °C/s, coiling up, and subjecting to a preliminary ageing treatment by cooling to room temperature.

7. (added) A method in accordance with claim 1, comprising a step, after said homogenization treatment, of removing the coil from the batch furnace and forcibly cooling while unwinding the coil.